POULTRY BREEDING RECORDS

BY GEORGE ROBERTSON
ASSISTANT DOMINION POULTRY HUSBANDMAN



Hatching egg. Shows how the eggs are marked during the breeding season. The marks on the egg denote pen 24, No. J 216.

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DOMINION EXPERIMENTAL FARMS

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DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE

Bulletin No. 103—New Series

POULTRY BREEDING RECORDS

INTRODUCTION

This system of records is given, not with the idea that it is perfect, or even that it is the best available, but simply as one that is in use on the Experimental Farms, and has proved satisfactory. It may be used as a model by the breeder, who may change it to suit his requirements.

PURPOSE OF BREEDING RECORDS

The purpose of breeding records is to have in convenient form accurate information as to the breeding, performance, etc., of individuals that may be used in matings.

The old system of pen matings is no longer considered sufficient among those who are trying to do careful, accurate, breeding work. That system was good so far as it went, but it did not go far enough, as but one side of the mating was recorded. Under a proper system of recording not only are both parents recorded but more or less complete information as to the characteristics of those parents is kept, so that when mating, the breeder having a comparatively complete history of all of his birds, is in a position to intelligently mate them.

In order to preserve the identity and make possible accurate recording, each individual is marked. For this purpose bands, being an accurate and convenient form of marking, are used on both legs and wings (fig. 1).

Where foot marking is used to indicate pen matings, instead of using the commercial punch usually advised, a penknife to slit the web between the toes is used. This may be done much more quickly and is much more reliable as the web never grows together as it very often does where a punch is used.

Trap-nests are practically essential for pedigree breeding. The only way to accomplish what is desired without using them, is by having separate pens for individual matings, which is too cumbersome and costly for present day use.

There are many types of trap-nests in use that are satisfactory. In figs. 2 and 3 is shown the type that is largely used on the Experimental Farms system.

When breeding for increased egg production an individual egg record is an essential part of the data required.

THE MONTHLY EGG AND FEED RECORD

This form (fig. 4) is kept in the pen and the production of each individual is recorded daily. On the completion of the month the forms are brought into the office, where the records of the individual birds are transferred to the form shown in fig. 5.

EGG AND BREEDING RECORDS

This is the most important form, as on it is collected all the information concerning the particular female for which it is used. Many of the other forms are simply feeders for this one or, in other words, the information is collected on the various other forms and then transferred to the "Egg and Breeding Records" form, so as to have all the information available in one place. This form is so simple that explanation seems unnecessary.

The information on the top of the form, pen number, variety, etc., is filled in when the pullets are leg banded on being put into winter quarters in the fall. The laying record is filled in from the Monthly Egg and Feed Records sheet at the end of each month. The eggs laid in November, December, January and February constitute the winter production.

The body weight, colour, shape and weight of eggs, are filled in at the breeding season, as at that time of year the birds should be in good condition, and will be in heavy laying, so that the required eggs will be gathered in a short time. It is advisable to examine a number, say one dozen eggs, in order that accurate data can be secured. For this work measuring calipers and scales will be necessary.

The letters on the bottom of the form indicate the word opposite them, for instance B indicates broodiness. If the bird becomes broody on a certain date the letter B is placed in the square for that date, or if an egg is laid and is broken in the nest on a certain date, an X is put in the square for that date, etc. At the end of the year the number of eggs laid, during the winter and year, is marked under "Egg Record." The first egg laid is bracketed. The year is from the date of the first egg laid; that is if a bird lays its first egg on the 10th of November it will complete its year on the 9th of November of the year following.

The numbers of eggs set, infertile, dead germ, hatched, and chicks that died up to three weeks of age, are placed under hatching records. This information is taken from the Hatching Records form (fig. 11), and under "Matings" is put the mating number for each year. (See mating list, fig. 8).

On the reverse side is a space for the birds' pedigree and photographic records. This part of the records is not filled in until the individual has shown by her production that she is one that barring accident will be reserved for future breeding work.

The "Egg Records Follow Sheet" (fig. 7), which provides for two years' egg record on each side, is placed in the holder immediately following the "Egg and Breeding Records" form. At the completion of a year the winter and yearly records are transferred to the parent form.

MATING LIST

At the time of mating, a list (fig. 8) is drawn up. In this list, each individual mating is given a number forming an index. This mating list is kept at hand when setting the eggs or banding the chicks, and the mating number indicates the page to turn to in the hatching records, as the numbers are all arranged in order and the mating numbers are the page numbers. In the "Notes" column may be given, in the case of hens for the pullet year and in the case of pullets for the winter period, the production and size of egg of each female used. This is very useful at the time of culling the chicks, as all the cockerels from dams below a certain production or from dams laying small eggs may be sold as broilers, thus giving the additional space to those chicks wanted for future use.

MALE MATING RECORDS

A record is entered on this form (fig. 9) of all matings into which a male enters during his life. The different headings are self explanatory with possibly the exception of "why kept," which is only filled in when a male is kept for a special reason, such as because he is the offspring of parents that were strongly bred for rich coloured eggs, or for size of eggs or some similar reason, in which case a note is entered of the fact, in that space.

On the reverse side (fig. 10) is given the male's extended pedigree and photographic records, together with a description, and notes worthy of recording

When any son is used for mating his number is entered in the column under "Sons bred." A record of the daughters may be readily found on the "progeny

records" form (fig. 13).

HATCHING RECORDS

The Hatching Records form (fig. 11) is the one on which is collected all the information as to the number of eggs set, their fertility and hatchability, and on which is also recorded the mortality of the chicks up to three weeks of age. This latter information is taken from the chick records.

CHICK RECORDS

The Chick Records form (fig. 12) is so simple as to require very little explanation. At the start of the season the column left for the chick band numbers is filled in so as to save time at banding time. The bands are numbered consecutively, thus, if the bands start at 1, the first page will be numbered 1 to 25. the second from 26 to 50, and so on. The adult band numbers are not filled in until the birds are leg banded in the fall. If a chick dies, under the head of "Notes" is marked "D" with the date, thus D 10/6, means that the bird died on the 10th day of June. When the chickens are three weeks old, the bands are taken off the legs and transferred to the wings. In the "Notes" column is marked W.B. with the date, thus W.B. 10/6. This will show the number of chicks alive at three weeks, the number that have died, and the number that have disappeared. It is from this column that information to fill in the column, "Died in three weeks," on the "Hatching Records" form is obtained. When the adult birds are banded in the fall, under the "Notes" column is placed the number of the pens in which the birds are put. With this record, by catching a chick on range and getting its wing band number, its date of hatching and breeding can be ascertained at a glance.

PROGENY RECORDS

The value of any bird as a breeder is determined by its progeny. No matter how perfect a bird may be individually, if it has not the power to transmit its good qualities to its offspring it is of little value as a breeder.

Good breeders are all too rare, so that when one does appear it is of

importance that its services should be retained as long as it is vigorous.

To test a bird as to its breeding ability it must be mated and then a careful record kept of all the resulting offspring, for this latter purpose the form shown

in fig. 13 is used.

The sire to be tested is shown in the first column, his mates in the second, and the daughters from the matings in the third. In the remaining columns is shown their monthly and total production, so that by having the various females that he was mated to, with the resulting daughters' records listed, a male's value as a breeder for egg production may be readily seen.

PROCEDURE FOLLOWED IN KEEPING RECORDS ON THE EXPERIMENTAL FARMS

The following general outline of the procedure followed at the Farm may help the reader to more readily grasp the system.—

The pullets when put into the laying pens in the fall are banded with adult leg bands. These are put on so as to be most conveniently read when trapnesting. That is, when the birds are standing on their feet the band is placed

on the left leg upside down, so that when the birds are removed from the trapnest and turned over, as is naturally done, the numbers will be in position to be read, instead of being upside down as they would be if placed right side up when the birds are standing naturally.

The birds are all trap-nested and, as stated previously, each egg laid is marked to the credit of the bird that laid it on the pen monthly egg sheet, and later copied onto the Egg and Breeding Records form.

During the breeding season each egg is marked to show the number of the pen and the number of the hen from which it came (fig. 14).

The eggs are then brought into the egg-room, culled, sorted, and those suitable for incubation placed on trays, each hen's eggs being kept separate from the rest (see egg cupboard, fig. 15) so that at time of setting, which is done once a week, all the eggs of each individual hen are in one place on the tray.

The operator takes the tray from the cupboard and places it on a table with the mating sheet alongside. He then takes the eggs of one hen from the tray, and after ascertaining by tapping the eggs together that the shells are sound, puts them on the incubator tray, at the same time referring to the mating list and calling out to an assistant, "mating number so and so," which indicates the page in the hatching records book. He also calls the number of eggs. The person handling the book turns to the page indicated and enters the number of eggs set and the date.

In the ordinary small incubators the eggs are generally tested on the 7th and 14th days, but in hatching in the Mammoth machine they are only tested once, on the 18th day. When candling, the operator puts all good eggs into an incubator hatching tray, all infertile eggs into one basket and all eggs with dead germs into another. After candling, the good eggs are sorted according to hens, and put into pedigree baskets (figs. 16 and 17), slips being made out, folded and placed in the baskets along with them. On the slip (fig. 18) is given the pen number, the hen number and the number of eggs left in.

As the ordinary pedigree basket holds more eggs than are usually set from any one hen, the eggs from two hens are put in the same basket, one lot from a Barred Rock hen and the other from a White Leghorn hen, so that the chicks may be readily distinguished.

At hatching time the operator, with his mating list beside him, takes the slip from the pedigree basket, unfolds it and notes the pen and hen number. Referring to the mating list, he calls to his assistant the information required to fill in the chick records (fig. 12) and the number of chicks. For instance, the operator calls "Barred Rock hen No. 10, sire 140, dam J76, mating 7, three chicks." This information the assistant enters in the records opposite the numbers of the three bands which are placed on the chicks' legs. The operator, while the assistant is doing this, is putting the bands on the chicks' legs (fig. 19). When the chicks are all removed from a basket it is set to one side. When all the chicks are banded the eggs which failed to hatch, and which are still in the pedigree baskets, are checked off, and marked in the "Hatching Records" as dead in shell, and the infertile eggs and eggs with dead germs that were taken out at the time of candling are sorted and checked off in a similar manner. After the chicks are leg banded they are put back in the incubator and left until the following day, when they are removed to the brooders. When the chicks are three weeks old the bands are removed from the legs and inserted into the wings and sealed (see fig. 20), where they remain throughout life.

The leg band is removed from any chick that dies and, as previously stated, note of the death is made on the chick records. Note is also made when the chick is wing banded, so that the mortality up to three weeks of age may be readily ascertained.

When the birds are 8 to 10 weeks old, the sexes are separated and the cockerels sorted, those required for breeding purposes being retained, while all those from dams laying less than 200 eggs, or that are not otherwise worthy, are put in either crates or pens, fed for a couple of weeks and sold as broilers.

When the pullets show signs of sexual maturity they are put into the laying houses, and the adult bands are put on their legs. At this time a sheet, similar to that shown in fig. 22, will be found very convenient for gathering

the data for transfer to the records.



Fig. 1—Instruments and bands used for marking chicks. From left to right: 1. Pen handle used for shaping the bands before wrapping them around the chick's legs. 2. Chick bands, the upper one as received from the maker and the lower one shaped to wrap around the chick's leg. 3. Pliers for sealing the bands after they are inserted through the wing. 4. Adult leg bands. The upper one is the lead plug band formerly used, and the lower is the one piece band now used, a simple, very reliable non-changeable band. 5. Pliers used for sealing adult leg bands.



Fig. 2—Removing the hen from the trap-nest. Note the position in which the hen is held in order to read the number on the leg band.



Fig. 3—When an egg is taken from the trap-nest it is marked with the number of the pen and of the hen.

DOMINION EXPERIMENTAL FARMS

POULTRY DIVISION

MONTHLY EGG AND FEED RECORD

YEAR LETTER

P	en	No	. Т

Variety, B.P. Rocks.

Month, April, 1926.

Former Total	Hen No.	1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	Value	Total Eggs to date
47	J216	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						26		73
79	217	_	1	1		1	1	1	1	1	1		1	1	1	1	1	1	1	1		1		1	1	1	1		1		1			23		102
70	219	1	1	-		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		29		99
72	220	1		1		1	1	1	1	1	1	1	1	1	1	1	1	i	1	1	1	1	1	1	1	1	1	1	1	1	1	1		29		101
109	221	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1		1		28		137
61	223	1	1	1			1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1		27		88
81	224	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	1	1	1	1	1	1	1		1	1	1		1		26		107
75	225	1	1	1]	1	1	1	1	1	1	1	1	1	1	1	1	_	1	1	1	1	1	1	1	1	1		1	1	1	1		28		103
79	226	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	_		1	1	1	1		27		106
64	227	1	1	1		1	1	1	1	1	1	1	1	_	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1			27		91
66	230		1	1		1	1	1	1	1	1	1		1	1	1	1	_		1	1	1	1	1		1	1	1	1	1	1	1		24		90
Floor					-	-		_								_			_				_				1				1	-		2		
Total	1	9	10	10	10	0 1	1	11	11	10	10	9	11	10	10	11	10	8	11	11	10	10	9	10	11	10	10	8	10	8	9	8		296		

FEED

Date	Sc. Grain	Cr. Oats	Meal Mix.	Milk	Meat Fd.	Green Fd.	Grit	Shell	Cher-coal	Total	Value
Total										 	
On hand	-										
Used											
Value											

Profit or Loss over Cost of Feed

Remarks: As the breeding records are the only concern at this time, the feed section of this form has not been filled in.

D.—Dead. B.—Broody. S.—Sick. R.—Returned.

M.—Moulting. X.—Eggs broken. N.—On nest. T.—Transferred. Size of original sheet, $8\frac{1}{2}$ x $\overline{14}$, showing records for thirty birds.

Fig. 4—Monthly Egg and Feed Records.

	o. 23 7 B.P.1	3.P.R. 1 2 3 4 5 6 7 8 1 1 1 1 1 1 1 1 1											ate at e) 2		815	5	Chick Band No. K37 Adult Band No. K46					
Date	1 2 3 4 5 6 7 8									9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1 Totals		
Nov.		1 1 1 1 1 1 1 1 1 1						1		1	1	1		1	1	1	1	1	1	1	1	1	_	1	1	1				_	23				
Dec.			1	1	1		1	1		1		1	1	1	1	1	1		1	1	1	1	1	1		1	1	1		1	1	1	24		
Jan.		1		1	1	1		1	1	1		1	1	1		1	1	1					_					1	1		1	1	17		
Feb.		1	1	1	1	1	1	1		1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1					24		8
Mar.		1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1		1			1	1	1	1		26		
April			1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1		1	1	1	1		1	1	1	1		26		
May		1	1	1	1	1	1	1	1		1	1		1	1	1		1	1	1	_	1	1	1	1	1	1	1	1	1	1	1	27		7
June		1	1	1		1	1	1	1	1	1	1	1	_	1			1	1		1	_	1	_	1	1	1	1		1	1	-	22		
July		1	1	1	1		_	1	1	1			1	1		1	_	1		1	1	_	1	_		1	1		1	1			18		
Aug.		1	1	1	1	1	1	1	1	1	_	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		$\overline{\mathbf{M}}$	_		_	_	24	-	
Sept.		1	1	1	1	-	1		1		M	_				_	_	_	(1)		_	1		1	1	_		_	1		1		12		
Oct.		1	1			1	1	_		_		1	1	1		1		1		1	1	_	George Williams	1	_	1			1	1		1	16		 25
Pullet b										Egg	g e			L.		юw	n	gg	, 1	E		sh						20′ -22				E4	gg weig	ht, 2·	
Year	Egg	R	lec	ord	ł				,		На	atc	hin	g]	Rec	eor	d					1	I at	in					v	 โลไ	۰.)ffs	pring B	red	
1 oai	Winte	er	7	Zea	a r					Ir	ıf.		D.	. G		Н	ato	eh	M	lor	t.	74		, a.a.s		6	71	Ī	21.			110	Pring D		_
1	88			25	9		2	8			7			5			16	3			2		K	134	1		74								
2																											83								
3																										٤	00								
4																																			

Fig. 5—Egg and Breeding Records. In the body weight the legitimate decimal point is used, but in egg shape the decimal refers to 32nds of an inch, that is, 2 and 4/32nds by 1 and 20/32nds, and in the egg weight the decimal refers to 16ths, that is, 2 and 2/16ths ounces. Size of sheet. 8 x 5 inches.

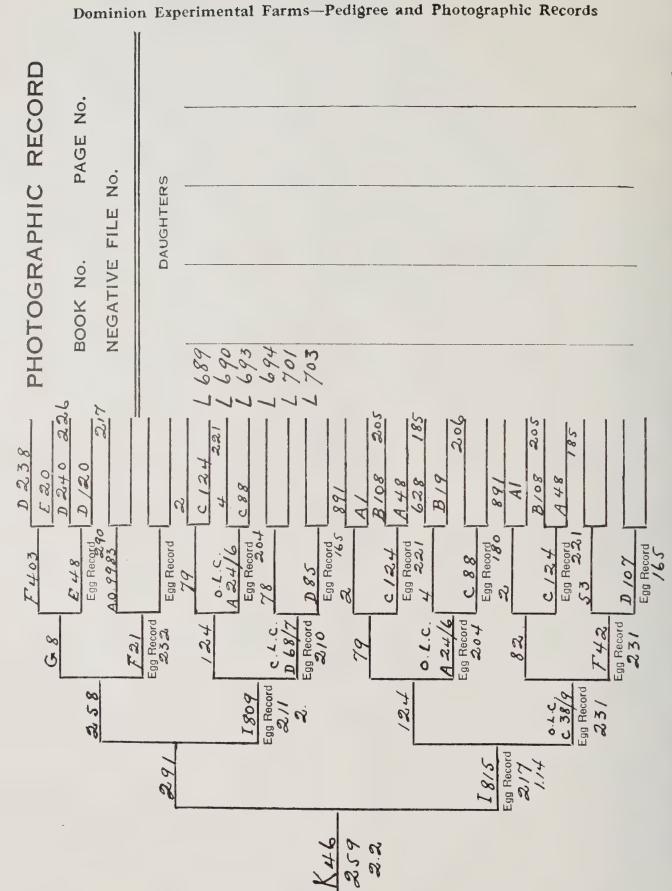


Fig. 6—Pedigree and Photographic Record form. This is the reverse side of the Egg and Breeding Record form shown in fig. 5. Size, 8 x 5 inches

Year]	Pe	n :	No								1	Va	rie	ety	7							,	Ad	ult	В	anc	l l	Vo.			
Date	1	2	3	1	1	5	6	7	8	9	10	11	12	13	1	4 1	5 1	6	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		Т	otals
Nov.															-		-							-	-				-		-					
Dec.		-		-	-		_	_	-					_					-					-					_		-					
Jan.		-		-							-	-	-		_	-	-			_	_							_				-				
Feb.				-				-					-	-	_		-				-	-		-				_					-			
Mar.				-	- -				_		-			-	_	-	-	- -				-	-									-				
April		-		-	- -				_				-		_				-1	_	-	_					-			-						
May															_			-			_	_				·			-			-				
June				-										-						-		_													_	
July			-	-				-	_														_													
Aug.			-	-										-									-							-						
Sept.		-	-	1	- -		-			-	-		-		_				-	-	_			-				_					-			
Oct.	_i_	-	-	-	-	-			-	_	-		-		_	-								-			_			•						
Year												Рe	n]	No																				-,,-		
Nov.				-							1				1					-]]					
Dec.		-								-	-		-	-						-	_								-		_		-		-	
Jan.	_ -	-		-	-		_		-		-							- -													_	_			_	
Feb.			1	-						-			-					-					_				-				_					
Mar.							-										-	-							-						-					
April		-	-						-																											
May							_										_		-								-		_	_	_					
June			-	-	- -			_						-									_													
July		-	-	-	-									-																						
Aug.	_				-					_								- -			_							_				-				
Sept.		_		-	-								-	-				-										_								-
Oct.			-	-	-				_	_		_		-		-			-	_	_	_				-				_	_					

Fig. 7—Egg Records Follow Sheet. Size, 8×5 inches.

14 BARRED ROCK MATING LIST—1926

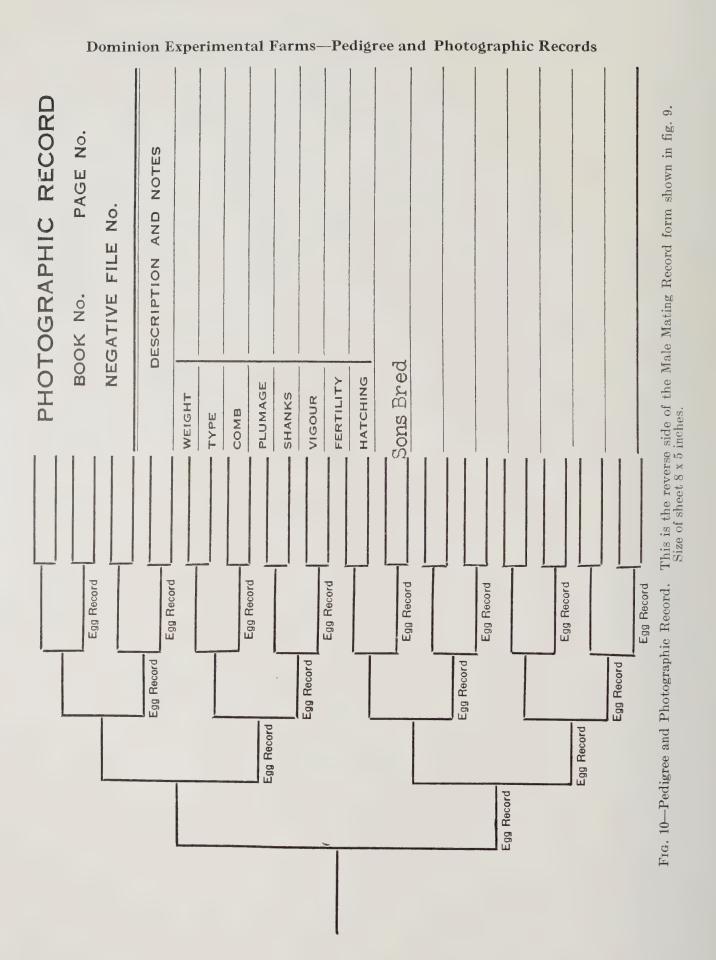
en No.	Sire No.	Dam No.	Mating No.		Remarks	
В	291 W.B. J 2137	I 809	J 1	Egg Prod.	Size 2	
	W.D. 3 2101	I 811	J 2	175	2	
		I 815	J 3	217	1.14	
		I 818	· J 4	176	2	
		I 876	J 5	217	2	
		I 883	J 6	217	2	
		CLC F 80/4	J 7	237	2·1	
		CLC F 80/5 RR	J 8	203	$2 \cdot 2$	
		CLC F 80/7	J 9	185	1.15	
		CLC F 80/8 RR	J 10	212	2.3	
		CLC F 80/9	J 11	210	$2\cdot 2$	
		CLC F 81/0 RR	J 12	203	$2\cdot 2$	
		CLC D 936/ R	J 13	240	2	
S charte		OLC A 24/6	J 14	204	2.3	
		OLC C 38/3 R	J 15	208	2	
D	204	G 150	J 16	193	12	
	W.B. H 3019 (D294)	H 16	J 17	198	2	
		H 49	J 18	190	2	
		I 807	J 19	182	2	
		I 824	J 20	192	1.12	
		I 825	J 21	213	2	
		I 830	J 22	212	1.15	
		I 831	J 23	179	2·1	
		I 855	J 24	189	2	
		I 860	J 25		2·1	
		CLC B 19/3	J 26	183	2.1	
		OLC B 28/2 R	J 27	202	2·1	
		OLC B 28/4 R	J 28	219	2·4	
		OLC C 38/6	J 29	182	2	
F	292	H 17	J 30	201	1.14	
	W.B. J 80	H 106	J 31	168	2.2	
		H 161	J 32	217	1.14	
		I 802	J 33		2	
		I 805	J 34	216	•	
		I 806	J 35	178	1·13 1·11	
		I 810	J 36	176	2.6	
		I 874	J 37	184	1.12	
		I 877	J 38	210	1.12	
		I 890	J 39	204	2.2	
		<u>I 930</u>	J 40	193	1.15	
		CLC C 59/4	J 41	175	1.15	
		CLC C 59/4 R	J 41 J 42	229	2	
		CLC D 65/7	J 43		$\frac{2}{2\cdot 3}$	
		$\left \frac{\text{CLC D 63/7}}{\text{CLC D 70/9}} \right $	J 43 ————————————————————————————————————	176	2.0	

Fig. 8—Mating list. R indicates a registered bird. RR indicates a registered bird out of a registered bird, the cockerels from which may be registered. In the "remarks" column the egg production and the size of egg are entered. This facilitates the culling of cockerels at the time of separating the sexes. Size of sheet, 8 x 13 inches.

	riety y kept			Hatche Out of	ed Mating	<u> </u>	♂ ♀	Chick Band No. Adult Band No.							
19		19		19	Mated 1	with in	19)	19)					
\$ N	Mating No.	♀ No.	Mating No.	♀ No.	Mating No.	9 No.	Mating No.	♀ No.	Mating No.	♀ No. 	Mating No.				
qs															
g Kecor															
Matin							6—15—41—51—41—4								
Dominion Experimental Farms—Male Mating Records															
al Farm															
riment						0		4							
n Expe															
Jominic			2												
					(

Notes

Fig. 9—Male Mating Records. Size of sheet, 8 x 5 inches.



Adult Band Nos. $\underbrace{\sigma}_{\mathbb{Q}} = 301$ $\underbrace{\circ}_{\mathbb{Q}} = C370$

Mating No. J189

	D.	ATE	Fggs Set	Infertile	Blood Rings	Dead Germs	Died in Shell	Hatched	Died in 3 Weeks	Remarks
30	Set	Hatched	Det	Imertie	Tungs	Germs	isitett	Tracencu	O WEEKS	TEMARA
Farms	3/3	25/3	2					2	1	This hen when
	10/3	1/4	4				1	3		eight years old, gave 100% fer-
Dominion Experimental Hatching Record	17/3	8/4	3					3		tility.
E Re	24/3	15/4	4			*	2	2		
Expe	31/3	22/4	5	A B SHOW TO A SHOW A SHOW A				5		
on j	7/4	29/4	5			,	. 2	3		
nini	14/4	6/5	5		1		1	3		
Don	21/4	13/5	4			- 1		3		
		1	32		1	1	6	24	1	

Fig. 11—Hatching Records. It would appear from the setting and hatching dates on this sample record that it took 22 days to hatch the eggs. The fact is, the eggs were set in the evening and the machines opened for banding the chicks on the morning of the 22nd day.

Size 8 x 5 inches.

Band Nos.

Breed	Hatched	Pen	Sire	Dam	Mating	Chiek	Adult	Notes
	25/3/26	24	259	J 90	J 163	K1		W.B. 13/4 P.
				:	:	2		W.B.—Br.
			:	:	:	20		W.B P.
		•			:	4		W.B.—D. 20/4.
Leghorn		18	310	J 640	399	10		W.BBr.
		24	259	J 94	164	9		W.B.—Ckl.
		٠	:			7		W.BP.
		:	:			000		W.B.—Ckl.
		23	256	J 25	147	6		W.BP.
		4	:		٠	10		W.B.—Br.
		:				11		W.BP.
Leghorn		7	248	J 498	345	12		W.BP.
		ಣ	282	J 432	331	13		WBP.
		/08	200	G 80/9	188	14		W.B.—Ckl.
,		0	:	:	:	15		D6/4
		:	*			16		WB,-P.
Leghorn		2	93	J 427	328	17		W.B.—Ckl.
		2	93	J 420	324	18		W.BP.
		25	258	J 105	168	19		W.BP.
			:	:	:	20		W.B.—P.
٠		:	:			21		D6/4
		/62	200	G 79/1	184	22		W.BP.
			303	H 622	283	23		W.B.—Br.
		:	:			24		W.BP.
		Ü	231	H 615	230	25		W B —Br

Frg. 12—Chick Records. In the notes column W.B. 13/4 indicates that the chick was wing banded on April 13. All chicks of a hatch are wing banded on the same date. Ckl. indicates a cockerel, P. a pullet, and Br. a broiler. Where Br. appears on the record it means that the chick was culled for physical defects or was not of sufficiently high breeding to warrant his being retained as a breeder. The notes, except the wing banding date, are put in at the time of separating the sexes.

Size of sheet, 8 x 5 inches.

Egg Size		В		В		T		L		T		M		В		В		L		T		В		T		H
Wt.		26		26		30		25		24		27		26		22		23		23		24		24		25
To ⁴ al		251		251		250		221		217		214		202		176		173		306		241		257		252
Oct.	3 (20)	251	13	15	18	21	(2)		17	215	22	28	17	202	(8)	1	18	47	29	883	19	37	10 (11)	257	20	252
Sept.	20	248	20 (2)	251	17 (3)	250	18	221	22	198	17 (6)	214	17	185	1		21	29	29	54	3 (18)	241	10	247	23	232
Arg.	26	228	25	231	11	233	21	203	23	176	14	197	က	168			(8) 9	173	3 (25)	306	16	238	18	228	20	209
July	26	202	16	206	25	222	21	182	14	153	15	183	TO.	165	3 Died	176	17	167	25	303	25	222	23	210	23	189
June	25	176	21	190	23	197	22	161	24	139	22	168	16	160	21	173	20	150	28	278	23	197	22	187	23	166
May	29	151	26	169	21	174	23	139	26	115	17	146	23	144	23	152	21	130	25	250	24	174	25	165	24	143
April	29	122	28	143	22	153	23	116	23	68	24	129	20	121	23	129	19	109	26	225	27	150	24	140	24	119
Mar.	28	93	22	115	25	131	21	93	20	99	27	105	23	101	19	106	12	06	24	199	26	123	21	116	24	95
Feb.	00	65	17	93	20	106	13	72	11	46	22	78	16	78	16	98	4	78	20	175	12	97	17	95	21	71
Jan.		57	21	92	21	98	19	59	16	35	26	56	21	62	20	20	1	74	27	155	16	80	20	78	21	50
Dec.	13	57	22	55	22	65	20	40	(19)		2	30	22	41	23	50	16	73	23	128	13	69	24	58	20	29
Nov.	24	44	18	33	22	43	18	20	2	217		28	(19)		19	27	10	57	22	105	19	56	23	34	(6)	
Daughters Wt.	K 337	0.9	K 88	6.1	K 96	0.9	K 308	5.7	K 322	5.6	K 98	6.1	K 207	0.7	219	6.3	K 26	5.6	K 30	6.2	94	6.1	K 314		K 355	6.7
Dam II Wt.	D 450	5.6	H 79	5.3	:		:		:		H 28,	6.9	:				H 101	5.6	4 4				:		:	
Sire Wt.	E 24	8.0																								

Fig. 13—Progeny Record taken from the records of the Sidney, B.C., Experimental Station. It gives a partial list of the daughters of an exceptionally fine White Wyandotte male. Of all his daughters that completed the year only two laid under 200 eggs, and one of these laid 176 and the other 173. This record, and the fact that the size of the eggs was good, makes this bird almost invaluable as a breeder.

Size of sheet, 8 x 5 inches.



Fig. 14—Hatching egg. Shows how the eggs are marked during the breeding season. The marks on egg denote pen 24, hen No. J 216.



Fig. 15—Hatching egg cupboard. When the eggs are brought in from the breeding pens they are sorted and placed in the egg cupboard. The eggs from each pen and each hen are kept together so that at setting time the operator can see at a glance the number of eggs from each individual hen.

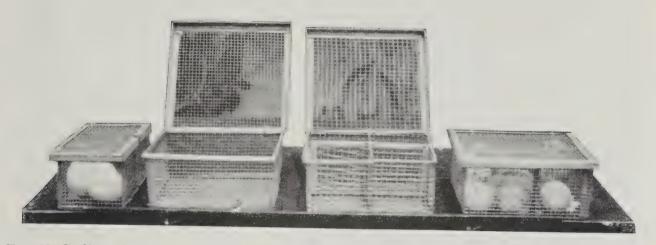


Fig. 16—Pedigree baskets. From left to right: 1. A basket to hold three or four eggs. 2. A similar basket made twice the size will hold eight or nine eggs. 3. A basket with division in place making four compartments, each one of which will hold one or two eggs. 4. A four compartment basket with the eggs and chicks in place, just as it comes from the incubator.

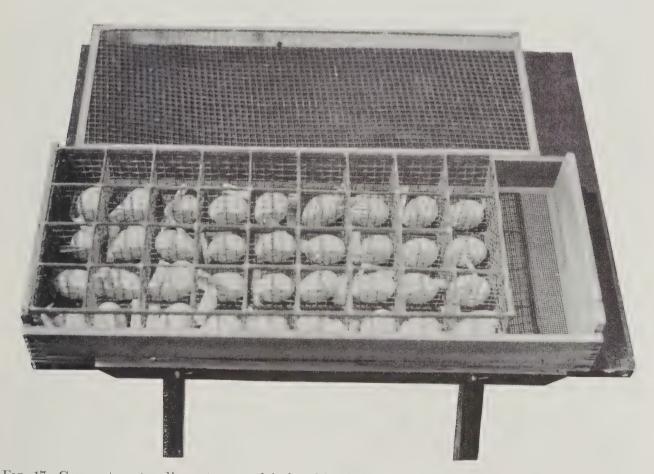


Fig. 17—Compartment pedigree tray used in hatching individual eggs. The screen in the background is placed over the top of the tray when it is in use.

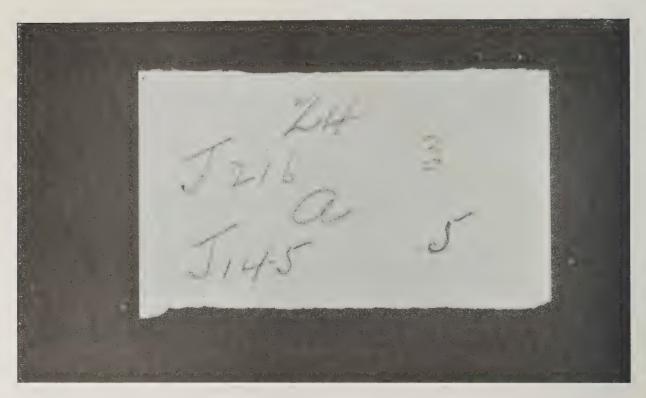


Fig. 18—Slip for pedigree basket. A slip like this is placed in each pedigree basket along with the eggs The above one reads: Barred Rock pen No. 24, hen No. J216, 3 eggs—White Leghorn pen No. A, hen No. J145, 5 eggs.



Fig 19—Leg banding chicks. When the chicks are removed from the pedigree baskets (see fig. 16) they are leg banded.

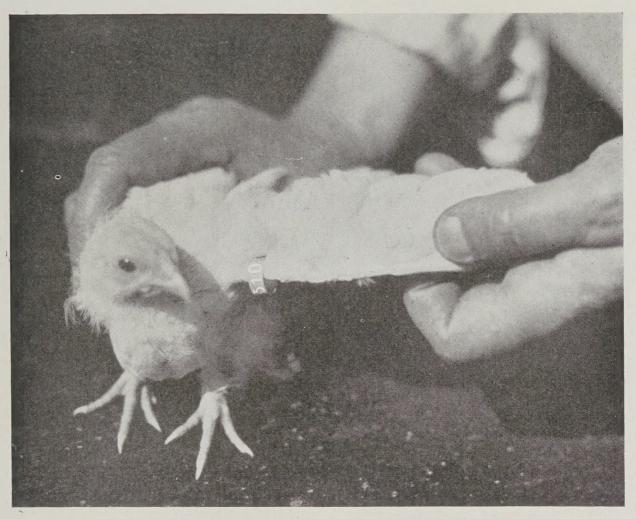


Fig. 20—Wing banding. When the chick is three weeks old the band is removed from its leg and inserted through the wing and sealed where it remains for the rest of the bird's life.



Fig. 21—A plucked wing showing where the incision for the wing band is made.

Fig. 22—Sheet, foolscap size, found very convenient for general use in collecting data.

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